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10/584,959	04/30/2007	Greg Koennecke	1075-P0002	9721

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EXAMINER

ADAMS, BRET W

ART UNIT	PAPER NUMBER
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2862

NOTIFICATION DATE	DELIVERY MODE
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04/14/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/584,959	Applicant(s) KOENNECKE, GREG	
	Examiner BRET ADAMS	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 1,3 and 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/30/06, 10/7/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1, 5a, and 5b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. Figure 4b is objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "x1" has been used to designate both the vertical and horizontal axis. It is believed this is merely typographical as the description of the figure discusses "x1" and "x2". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1, 3, and 5-7 are objected to because of the following informalities:

4. In claim 1, enumerated line 210, "that may moved" seems to contain a typographical omission. The examiner has interpreted the claim to read "that may be moved" thereby allowing the image focus adjustment lens to be moveable to adjust focus.

5. In claim 1, enumerated line 215, "where wherein" is present where only "wherein" is necessary. The examiner has interpreted this as merely a typographical error.

6. In claim 1, line 215-216, "wherein / the focussing lens" leads to indefiniteness in the claim as it is not readily clear which focusing lens is being referred to. The examiner assumes that the intended limitation is "wherein / the focus aid mark focussing lens" as the claim goes on to discuss its relationship to the imaging system focus adjustment lens.

7. In claim 3, line 220, "A fundus camera of claim 1" appears twice in succession.

8. In claim 3, line 220, "wherein the focusing lens / is a negative lens" leads to indefiniteness in the claim as it is not readily clear which focussing lens is being referred to (the imaging system's or the focus aid mark's). Per the specification Figure 3a and 3b, it appears both are intended to be limited to negative lenses, and this should be reflected accordingly in the claim. For purposes of examination, however, it is interpreted that prior art containing a negative lens used for focusing is sufficient to read on the claim.

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9. In claim 3, line 221, “the non-moving lenses” lacks antecedent basis as it depends on claim 1 which does not contain non-moving lenses. For purposes of examination, any non-moving lenses present in the prior art are sufficient to read on the claimed limitation.

10. Claim 5 improperly depends on itself. For purposes of examination the examiner has interpreted claim 5 to depend on claim 1.

11. In claim 6, line 229, “the fixed lenses” lacks antecedent basis in the claims. The Examiner assumes that the Applicant intended for this to refer to the non-moving lenses introduced in claim 2, and has been interpreted accordingly. Further “the fixed lenses” leads one to believe that there must be more than one fixed lens in the optical same optical path. It is noted, though, that in claim 2 is it stated "one or more" which includes the state where there is only one fixed lens in the optical path. A possible suggestion would be to change "one or more non-moving lenses" to "at least one non-moving lens" in claim 2.

12. In claim 6, line 230, “the system imaging plane” lacks antecedent basis in the claims and accordingly leads to indefiniteness. For purposes of examination the examiner has interpreted any imaging plane present in the prior art to be sufficient to read on the intended claim, assuming the disclosed structural relationship of the claim.

13. In claim 7, lines 236 and 237, “the or each light source” lacks antecedent basis in the claims. A suggested correction is to replace the term with “the at least one fundus illuminating light source” to make clear the intended structural limitation and provide proper antecedent basis (per the introduction at line 235).

14. Appropriate correction is required.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohayakawa (US 4452517).

17. Regarding claim 7, Kohayakawa discloses a fundus camera with and alignment mark projecting system including: an objective lens (1) for forming an eye fundus image at a plane within the fundus camera, at least one fundus illuminating light source (13), a reflective means (17) for directing the light source onto the fundus, at least one condenser lens (14) for directing the light source onto the reflecting means, and an alignment mark light source (51) that shares part of the optical path between the fundus illuminating light source and the reflective means.

18. Regarding claim 8, Kohayakawa discloses that the fundus camera further comprises a slit or other aperture (132) for forming a mark from the alignment mark source that is coplanar with the eye pupil when the fundus camera is correctly positioned (see c.8 l.34-36).

19. Regarding claim 9, Kohayakawa discloses that the fundus camera further comprises wherein light from the alignment mark light source and slit is combined with the optical path (at 127 in Fig 13) of the fundus illumination light by a second reflecting

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means (127) adjacent to an illumination stop (15) in the illumination system such that the slit and illumination stop are both conjugate with the plane of the eye pupil when the fundus camera is correctly positioned (see c.8 l.31-45).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohayakawa (US 4452517) in view of Kato (US 4187014).

22. Regarding claim 10, Kohayakawa teaches the fundus camera discussed above with respect to claim 7. Kohayakawa does not explicitly teach that the fundus camera includes a pair of deflecting prisms that deflected the light from the slit along two separated optical paths such that two images of the slit are formed that are only aligned to form a single image of the slit at a plane coplanar with the eye pupil when the camera is correctly aligned. Kato teaches a fundus camera which includes an alignment mark light source that includes a pair of deflecting prisms (19, Fig 1) that deflect the light from the slit along two separated optical paths such that two images of the slit (Figs 3b-3c) are formed that are only aligned to form a single image (Fig 3a) of the slit at a plane coplanar with the eye pupil when the fundus camera is correctly aligned (see Kato c.4 l.4-10, 36-45). It would have been obvious for one having ordinary skill in the art at the time of the invention to use a pair of deflecting prisms as taught in Kato with the

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alignment mark light source fundus camera of Kohayakawa because doing so allows for the user of the fundus camera to readily determine if the camera is correctly aligned so that a proper picture can be taken. Additionally, the user would be able to determine which direction to move the camera optics in order to obtain the focus position (by comparing Fig 3b and 3c to Fig 3a).

23.

24. Claims 1 and 4-5 rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 4187014) in view of Kohayakawa (US 4452517).

25. Regarding claim 1, Kato teaches a fundus camera with a focus aid mark projecting system including: an objective lens (1) for forming a subject eye fundus image at a plane within the fundus camera, an image focus adjustment lens (3) that may be moved to adjust the focus of the imaging system so that it is focused on the same plane as a first image of the subject eye fundus formed within the fundus camera, and a focus aid mark projection system (17,18,19,20) which includes a moving focus aid mark lens (17) that moves so as to move the focus of the focus aid mark so that it is coplanar with the focal plane of the imaging system, wherein the lens (17) is attached to the imaging system focus adjustment lens so as to move with that lens (see c.3 l.14-61, Fig 1, as well as c.4 l.36-45 for discussion where (17,18,19,20) move axially as focusing lens (3) is moved, "moved as a unit"). Kato does not explicitly teach that the relay lens (17) is used for focusing of the focus aid mark. Kohayakawa teaches a fundus camera with focus aid marker projection wherein the focus aid marker projection system has a relay lens (130) which is used to focus the marker onto the mirror which directs the light

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rays (see Kohayakawa c.8 l.46-61 and Fig 13). It would have been obvious for one having ordinary skill in the art at the time of the invention to use the relay lens (17) in Kato to focus the focus aid marker, as taught by Kohayakawa, because doing so would provide the predictable result of indicating to the user, via the marker projection system, that the fundus camera is correctly positioned and focused while allowing the user to adjust only one part of the device (as the focusing lens 3 “moves as a unit” with 17,18,19,20, one would need only adjust 3).

26. Regarding claims 4-5, Kato and Kohayakawa teach the fundus camera discussed above. Kato further teaches the camera wherein the focus aid mark is formed as an image of a slit or similar aperture (see Fig 3a-3c) in the focus aid mark projection system. Kato further teaches that the camera includes a pair of deflecting prisms (19) that deflect the light from the slit along separated optical paths such that two images of the slit are formed (Fig 3b-3c) that are only aligned to form a single image (Fig 3a) of the slit at a focal plan of the focus aid mark projection system (see also c.4 l.4-10).

27.

28. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato '014 in view of Kohayakawa '517 and further in view of Nunokawa (US 4544248).

29. Regarding claim 2, Kato and Kohayakawa teach the fundus camera discussed above with respect to claim 1. Kato and Kohayakawa do not explicitly teach that the fundus camera comprises one or more non-moving lenses in the same optical path as the focus aid mark focusing lens. Nunokawa teaches a fundus camera with a focus aid mark projecting system which has one or more non-moving lenses (32) in the same

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optical path as the focus aid mark focusing lens (54). It would have been obvious for one having ordinary skill in the art at the time of the invention to provide a non-moving lens in the same optical path of the focus aid mark focusing lens of Kato and Kohayakawa, as taught by Nunokawa, because doing so would allow for more accurate control of the focus aid mark's light beam, allow the beam to be more precisely directed where it is needed (such as onto the reflector 15 of Kato).

30. Regarding claim 6, Kato, Kohayakawa, and Nunokawa teach the fundus camera discussed above with respect to claim 2. Kato, Kohayakawa, and Nunokawa do not explicitly teach that the powers of the focus aid mark focusing and fixed (non-moving) lenses in the same optical path are chosen such that the image of the focus aid mark forming slit and a plane conjugate with the system imaging plane are always substantially coplanar. However, it is well within the skill of the ordinary artisan to adjust the powers of the focus air mark focusing and non-moving lenses. It would have been obvious for one having ordinary skill in the art to choose the powers of the focus aid mark focusing and non-moving lenses such that the image of the focus aid mark forming slit and a plane conjugate with the system imaging plane are always substantially coplanar, since choosing such powers would provide predictable results and would be in accordance with the endeavor set forth in Kato which is to make the focus aid mark focused at the same plane as the imaging plane, and is why the focus aid mark focusing lens and the image focus adjustment lens are moved "as a unit" (see Kato c.4 l.36-45).

31.

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32. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato '014 in view of Kohayakawa '517 and further in view of Applicant's Admitted Prior Art (herein AAPA).

33. Regarding claim 3, Kato and Kohayakawa teach the fundus camera discussed above with respect to claim 1. Kato further teaches non-moving lenses (7,9, Fig 1) are positive lenses. Kato and Kohayakawa do not explicitly teach that the focusing lens is a negative lens. Starting on line 34 and continuing through line 41 of the instant application's description, the Applicant admits that using a negative lens for focusing is known in the art, and provides the added benefit of reducing the change in image magnification during focusing. It would have been obvious for one having ordinary skill in the art to replace the focusing lens of Kato with a negative lens, as taught by AAPA lines 34-41, as it would reduce the change in magnification during image focusing.

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRET ADAMS whose telephone number is (571)270-5028. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571)272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRET ADAMS/
Examiner, Art Unit 2862

/Patrick J Assouad/
Supervisory Patent Examiner, Art Unit 2862